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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,730	09/30/2004	Soshu Kirihara	M1071.1920	9942

32172 7590 03/06/2007

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EXAMINER	
BALDWIN, GORDON	
ART UNIT	**PAPER NUMBER**
1775	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,730	KIRIHARA ET AL.	
	Examiner	Art Unit	
	Gordon R. Baldwin	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) *8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20060306*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I (Claims 1-7 and 9-13) in the reply filed on 2/21/2007 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 and 9-13 are rejected under 35 U.S.C. 112, first and second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the claiming of "two substances" is merely setting forth physical characteristics desired in the article ("two substances"), and not setting forth specific compositions which would meet such characteristics, which is considered to make claim 1 invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in future and which would impart desired characteristics, (*Ex parte Slob*, 157 USPQ 172).

In claim 4, it is considered to be vague how the conductive film might be placed on both substances, since one of the two substances is air.

In claim 7, the claiming of "air" as one of the substances, is considered to be vague and indefinite since air is not defined in the specification as to what ranges of chemicals constitute such a substance. Additionally, claim 7 is considered vague because it implies that the air is being shaped, which is considered vague or structurally misrepresenting that structure.

In claim 10, it is not clear how a layer can be formed on air. Clarification is requested.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 9-13 are rejected under 35 U.S.C. 102(b) as anticipated over Kabushiki (EP 1085352).

Consider claims 1-6 and 9-12, Kabushi teaches a polyimide (considered to be a resin) porous body with spaces (air) with a conductive film of copper being precipitated by electroless plating in the surface of the polyimide porous body. (Para. 80-82)

As the copper is formed on the surface of the porous body by a method commensurate with that taught by the applicant (electroless plating) the characteristics thereof are expected to be similar, such as distribution of particles and resistivity and conductivity.

Since Kabushiki teaches the use of copper as the conductive film, the conductivity limitation of claim 3 are considered to be met.

Consider claims 4, 5, 10 and 11, the teaching of the use of electroless plating to deposit the conductive film is considered to be a product –by-process limitation and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the

product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.", (In re Thorpe, 227 USPQ 964,966). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious different between the claimed product and the prior art product (*In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113).

Consider claims 7 and 13, the shape of a diamond is considered to be a matter of choice, which a person of ordinary skill in the art at the time of the invention would have found obvious absent persuasive evidence that the particular configuration of the claimed subject matter was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Claims 1,3-7 and 9-13 are rejected under 35 U.S.C. 102(b) as anticipated over Kawakami (EP 1010997).

Consider claims 1, 3-6 and 9-12, Kawakami teaches a three dimensional periodic structure with a silica substrate (considered to be a substance) and air with a conductive film of copper deposited on the silica substrate by a sputter etching process. (Para. 0060-0062)

Since no thickness is given for the conductive film in claim 1, which is considered to be a structural feature that would be determinative for the resistance, and since Kawakami teaches the use of copper, then the surface resistively is considered to be met, because Kawakami teaches the use of similar materials as the applicant, (two surfaces and the use of copper as the conductive film) the resistivity is considered to render similar physical characteristics.

Since Kawakami teaches the use of copper as the conductive film, the conductivity limitation of claim 3 are considered to be met.

Consider claims 4, 5, 10 and 11, the teaching of the use of electroless plating to deposit the conductive film is considered to be a product –by-process limitation and even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.", (In re Thorpe, 227 USPQ 964,966). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious different between the claimed product and the prior art product (*In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113).

Consider claims 7 and 13, the shape of a diamond is considered to be a matter of choice, which a person of ordinary skill in the art at the time of the invention would have found obvious absent persuasive evidence that the particular configuration of the claimed subject matter was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon R. Baldwin whose telephone number is (571)272-5166. The examiner can normally be reached on M-F 7:45-5:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GRB

JENNIFER MCNEIL
SUPERVISORY PATENT EXAMINER
3/5/7